

## **Rubric – Biorhythms Project – (Through First Checkpoint)**

RATING / Assessment Task	EXCELLENT	ACCEPTABLE	NEEDS REVISION
1-3	Chronologically numbered day of the year is accurate. Explanation of Leap Year provides evidence of the mathematical implications to the current calendar.	Chronologically numbered day of the year is accurate. Explanation of Leap Year is provided but does not demonstrate mathematical implications.	Chronologically numbered day of the year is inaccurate. Explanation of Leap Year provides no evidence of in depth research.
4	Proper function notation is used with clear variable definitions. Variables and function names distinguish between functions and relate them as well.	Function notation is used including variable definitions with minor errors.	Errors in function notation and/or variable definitions create misleading information.
5	Function choice appropriately models biorhythm. Clear mathematical explanations of all parameters involved are accompanied by an accurate explanation of the practical significance of each parameter and its affect on the appropriate variable.	Function choice appropriately models biorhythm. Mathematical explanations of all parameters are provided. Explanation of the practical significance of each parameter is provided.	Function choice cannot appropriately model biorhythm.
6	First deadline is met regardless of revisions required.	First deadline is met with draft requiring revision.	Deadline is not met.

## **Rubric – Biorhythms Project – (Through Final Checkpoint)**

RATING / Assessment Task	EXCELLENT	ACCEPTABLE	NEEDS REVISION
7	Parameters accurately demonstrate an understanding of the affect of each on the functions range. Reasoning is provided for the choice of values for these parameters.	Parameters demonstrate some understanding of the affect of each on the functions range.	Parameters demonstrate little or no understanding of the affect of each on the functions range.
8-9	Calculations for parameter B and C are accurate for each biorhythm. Sine or Cosine has been chosen to guarantee the smallest possible horizontal shift. Explanations provide evidence of underlying mathematical idea of phase shift.	Calculations for parameter B and C are acceptable for each biorhythm. Sine or Cosine has been chosen with little evidence of understanding of horizontal shift.	Calculations for parameter B and C are not accurate.
10-11	Written functions are accurately entered into appropriate technology. Evidence of some strategy to “double check” functions accuracy is verbalized to instructor.	Written functions are entered into appropriate technology with minor errors. No evidence of strategy to check function accuracy is verbalized to instructor.	Written functions are not accurately entered into appropriate technology.
11	Second deadline is met regardless of revisions required.	Second deadline is met with draft requiring revision.	Deadline is not met.
12-13	Project format is neat, presentable, uses proper vocabulary and contains succinct and accurate explanations which provide evidence of understanding of the underlying mathematical concepts. Graphs are clear and accurately display the required information.	Project format is presentable, contains appropriate vocabulary and explanations which provide evidence of some understanding of the underlying mathematical concepts. Graphs are clear and display some of the required information.	Project does not convey evidence of understanding of the underlying mathematical concepts. Graphs do not provide useful interpretation of the biorhythm.